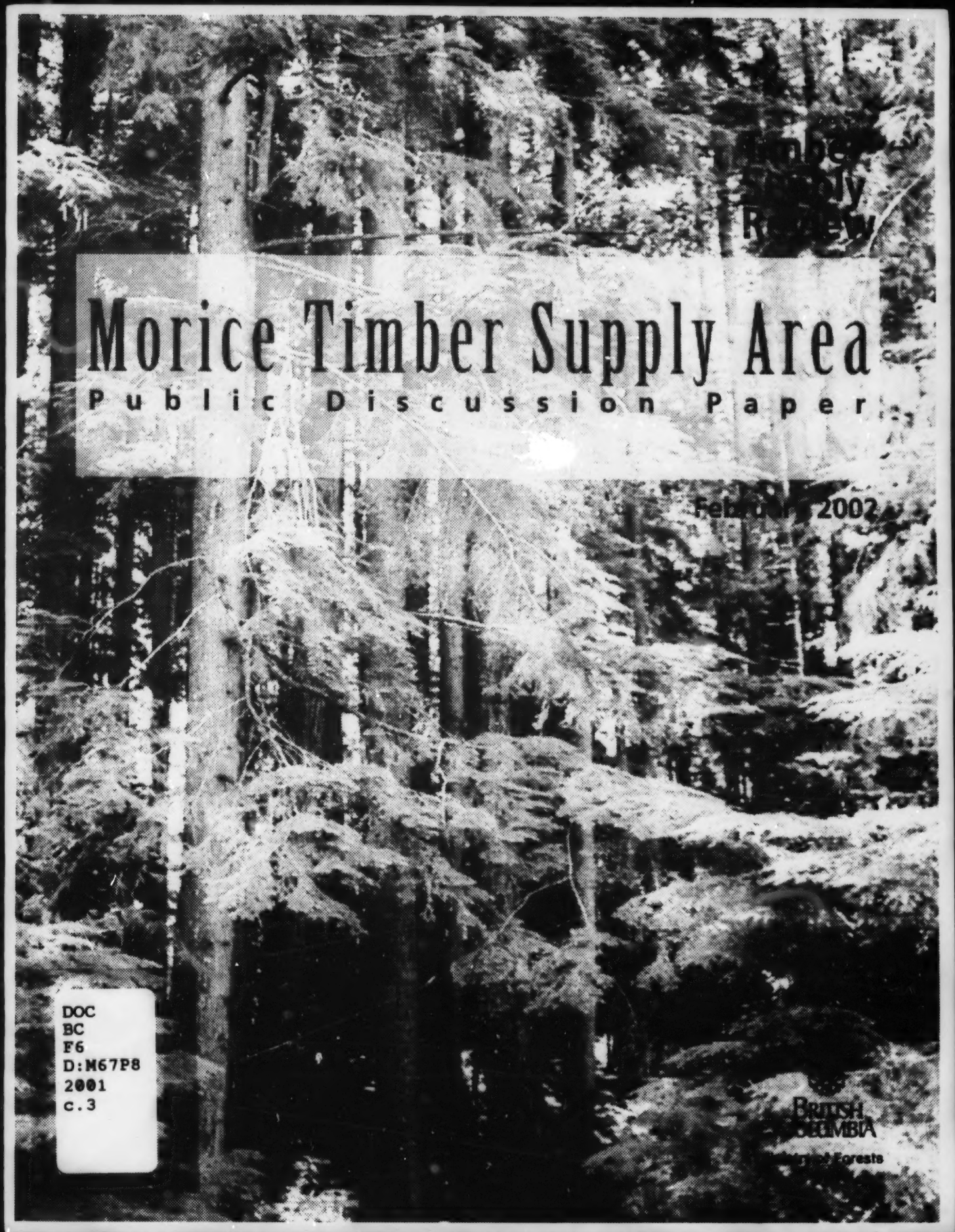

Morice Timber Supply Area

Public Discussion Paper

February 2002

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Introduction

Welcome to the timber supply review for the Morice Timber Supply Area. The British Columbia Forest Service reviews the timber supply* for all timber supply areas* (TSAs) and tree farm licences* (TFLs) in the province at least once every five years. This review examines the impacts of current forest management practices on the timber supply, economy, environment and social conditions of the local area and the province. Based on this review, the chief forester will determine the allowable annual cut* (AAC) for the Morice TSA.

The timber supply review considers:

Economic, environmental and social factors, information about current forest management practices, and public input.

The timber supply review produces:

- A new AAC for the next five years
- A list of the information to be improved for future timber supply forecasts

Timber supply review in the Morice TSA

With the release of the *2002 Morice TSA Analysis Report*, the British Columbia Forest Service has completed the second step in its timber supply review (see steps below). The *Analysis Report* contains a timber supply analysis with harvest level forecasts and a socio-economic analysis. This discussion paper summarizes the report, provides an overview of the timber supply review process and encourages British Columbians to provide comments during the 45-day public review period. **Public comments will be accepted until April 1, 2002.**

Before setting a new AAC, the chief forester will review all relevant reports and public input. The chief forester's determination will be outlined in a rationale statement that, along with the summary of public input, will be available to the public upon release. Following the release of the chief forester's AAC determination, the minister of forests will apportion the AAC to the various licences and programs.

* **Timber supply** – the amount of timber that is forecast to be available for harvesting over a specified time period, under a particular management regime.

* **TSA** – an integrated resource management unit established in accordance with Section 7 of the Forest Act.

* **TFL** – provides rights to harvest timber, and outlines responsibilities for forest management, in a particular area.

* **AAC** – the rate of timber harvest permitted each year from a specified area.

Review Process for the Morice TSA

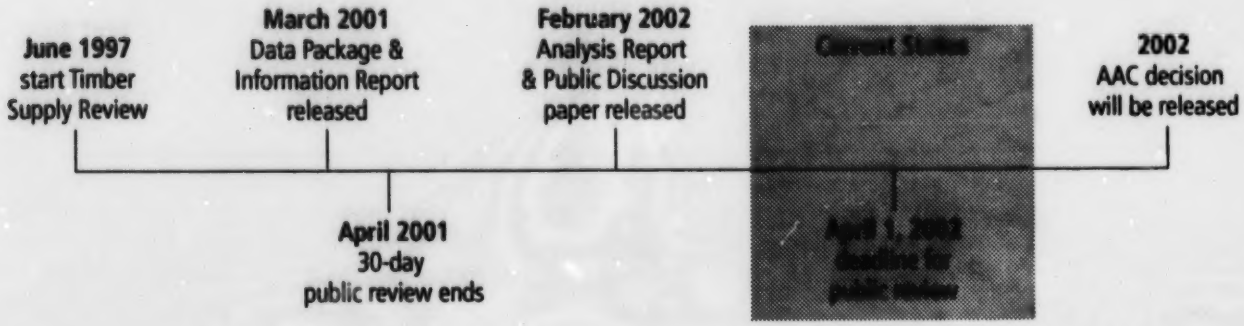

Figure 1. Steps in the timber supply review process for the Morice TSA

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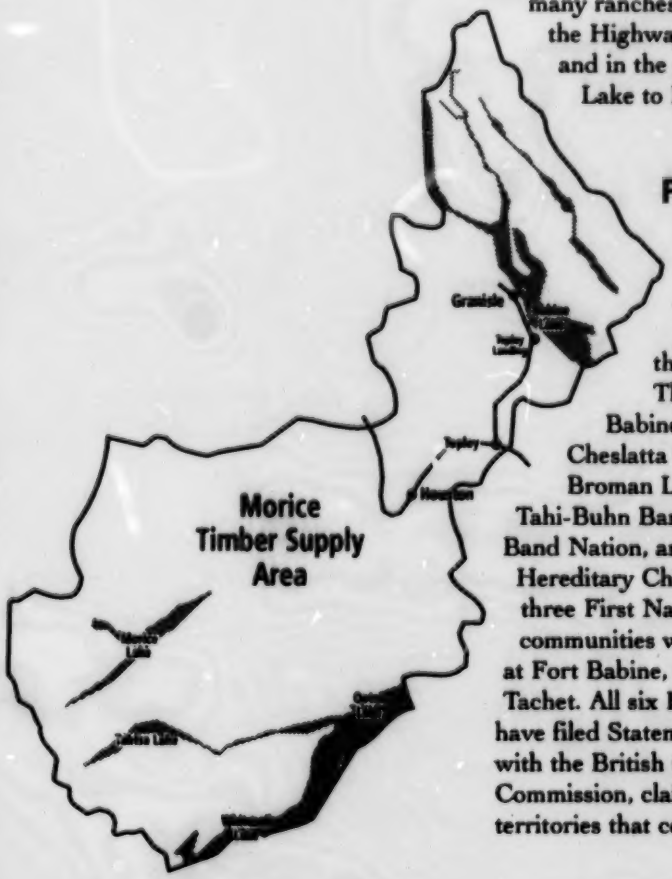
* **Timber harvesting land base** – Crown forest land within the timber supply area where timber harvesting is considered both acceptable and economically feasible.

Description of the TSA

The Morice TSA is located in northwestern British Columbia and covers about 1.5 million hectares, extending from the most northerly tip of Babine Lake in the north to Ootsa and Whitesail lakes in the south. The boundaries of the Morice TSA correspond with those of the Morice Forest District, one of six districts in the Prince Rupert Forest Region. The TSA is administered by the forest district office in Houston.

The population of the Morice TSA is about 5,600 according to the 1996 census, a nine per cent decrease since 1991. The main community is Houston, which is home to about three-quarters of the TSA's population. The remainder of the population lives in smaller communities such as Topley and Granisle, or on the many ranches and farms along the Highway 16 corridor and in the area from Owen Lake to Francois Lake.



First Nations

Six First Nations have traditional territories within the Morice TSA. They are the Lake Babine Nation, Cheslatta Carrier Nation, Broman Lake Band, Nee-Tahi-Buhn Band, Skin Tyee Band Nation, and Wet'suwet'en Hereditary Chiefs. There are three First Nations communities within the TSA: at Fort Babine, Old Fort and Tachet. All six First Nations have filed Statements of Intent with the British Columbia Treaty Commission, claiming traditional territories that cover almost all of the Morice TSA. Once the treaties have been finalized, they will be considered in a future timber supply review.

Information from cultural heritage inventory studies, archaeological impact assessments and traditional-use surveys that have been completed will be considered in the upcoming allowable annual cut determination.

The natural resources

The forests of the Morice TSA provide a wide range of forest land resources, including forest products (timber and other products, such as wild mushrooms), minerals, recreation and tourism amenities, and fishery and wildlife habitats. In addition, the beef ranching industry depends heavily for summer forage on Crown range land in the major valleys of the TSA.

The Forest Practices Code outlines a process for identifying species at risk that require special management. Currently, a number of species identified as at risk may be found in the Morice TSA, including the northern goshawk, trumpeter swan, fisher, grizzly bear and bull trout.

As Figure 2 shows, about 64 per cent of the Morice TSA land base is considered productive Crown forest land managed by the British Columbia Forest Service (about 961,000 hectares). Currently, about 71 per cent of this is considered available for harvesting (the timber harvesting land base*).

area not managed by BCFS 5.5%
alpine, rock, swamp, range and brush 30.5%
29% not available for timber harvesting
71% available for timber harvesting

Figure 2. Breakdown of land base for Morice TSA

Environmental values

Current forest management follows the standards set out by the Forest Practices Code. These standards are designed to maintain a range of biodiversity and wildlife values. In the Morice TSA, about 29 per cent of the productive Crown-owned forest land is not considered available for timber harvesting and will provide for many environmental values. Forested area both inside and outside the timber harvesting land base will help maintain critical forest habitats for many species. The analysis includes forest cover requirements for biodiversity, scenic areas, caribou habitat, protection of environmentally sensitive areas and stream, lake and wetland management.

Land-use planning

A sub-regional land and resource management planning (LRMP) process has not yet been initiated, although some background work has begun. Once initiated, the LRMP will recommend objectives and strategies for managing land and resources throughout the TSA, and could make recommendations on 10 proposed protected areas in the Morice TSA. For the purposes of this timber supply analysis, harvesting in these proposed protected areas has been deferred for 10 years.

Current allowable annual cut

Following the last timber supply review, the chief forester set the AAC for the Morice TSA at 1,985,815 cubic metres, effective July 16, 1996. This volume was essentially unchanged from the previous AAC.

Socio-economic profile

Regional economy

The forest industry in the Morice TSA is an important source of employment and income for local residents. Other important sources include the public and tourism sectors (see Figure 3).

In 1996, the forest sector, including harvesting, silviculture and forest products manufacturing, accounted for more than half of the TSA's total employment. The forest sector was also the source of 52 per cent of the income in the area.

* **Partition** – A portion of the AAC that is attributed to certain types of timber and/or terrain.

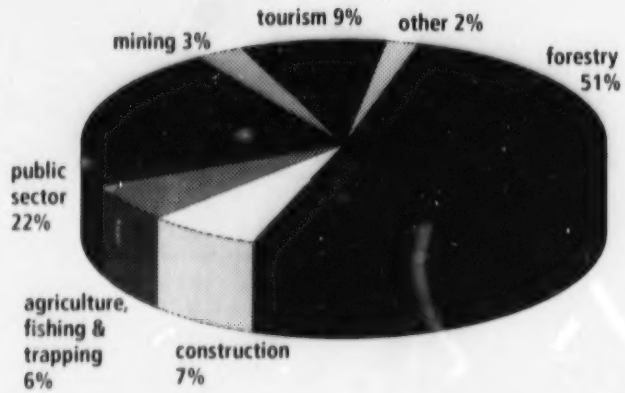


Figure 3. Experienced labour force by sector (1996), Morice TSA

The public sector is the second-largest employer in the Morice TSA, accounting for 22 per cent of the total employment. The tourism sector, which includes both business and leisure travel, provides nine per cent of the total employment.

From 1997 to 2000, an average of 1.97 million cubic metres per year was harvested in the Morice TSA. The timber harvested within the TSA provides about 80 per cent of the area's milling capacity.

Table 1 illustrates the potential contribution of the forest industry associated with the Morice TSA timber harvest to both the regional and provincial economies. Figures in this table are based on the current AAC of 1,985,815 cubic metres.

Timber supply forecasts

A timber supply computer model was used to project possible timber supply forecasts for the next 250 years. The base case forecast illustrates the effect of current forest management practices on timber supply, using the best available information. The base case forecast is not a recommendation for an AAC, but rather it is one of many sources of information the chief forester will consider when setting the AAC.

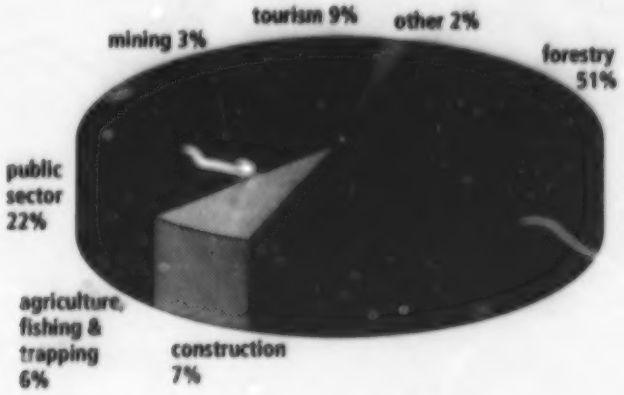
As Figure 4 shows, the base case forecast for the Morice TSA indicates that an initial harvest of 1,961,117 cubic metres per year (the current AAC adjusted to account for woodlot licences) can be maintained for four decades.

Table 1. Local and provincial economic information associated with the current AAC of 1,985,815 cubic metres.

Forest industry economic contribution

	TSA	Provincial
Direct employment (person years)	1,030	1,460
Total employment (person years)	1,343	3,200
Total employment income ($1999 millions per year)	41.6	92.5
Provincial government revenues ($1999 millions per year)	n.a.	113.3

* **Partition** – A portion of the AAC that is attributed to certain types of timber and/or terrain.



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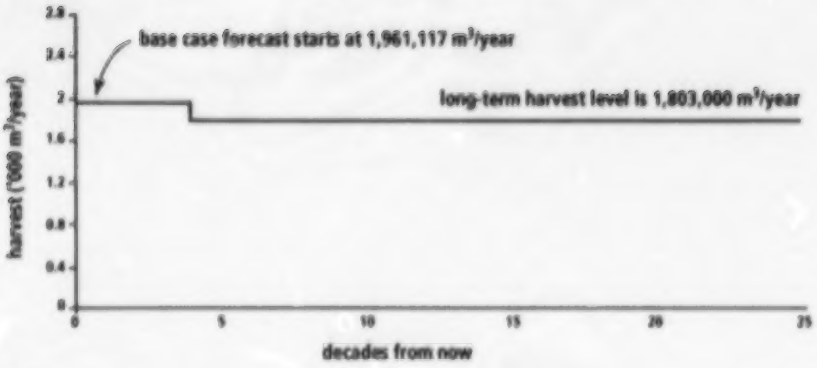

Figure 4. Base case timber supply forecast — Morice TSA, 2002

After that, the timber supply is projected to decline by about eight per cent to the steady long-term harvest level of 1.8 million cubic metres per year.

Compared to the 1996 timber supply analysis, several changes have occurred in the Morice TSA that affect timber supply forecasts. The timber harvesting land base has increased by 7.8 per cent, mostly as a result of including area previously considered as low productivity.

This increase has been slightly offset by areas excluded due to high development costs. In addition, the implementation of the Forest Practices Code, including reductions for riparian areas and management zones, and requirements for scenic areas, wildlife habitat and biodiversity, has affected timber availability.

Sensitivity analyses: examining uncertainty

Because forests are complex and constantly changing, timber supply analysts assess how the timber supply might be affected by uncertainties in inventory information and management practices. These uncertainties are generally examined through what are called sensitivity analyses, which the chief forester will consider in determining an AAC. The sensitivity analyses are useful for assessing how uncertainties and risks, or any changes in information, might affect timber supply.

In the Morice TSA, a number of sensitivity analyses were conducted to examine the stability of the timber supply in light of uncertainties. Two key sensitivity analyses are described below. For a complete listing of sensitivity analyses, please refer to the *2002 Morice TSA Analysis Report*.

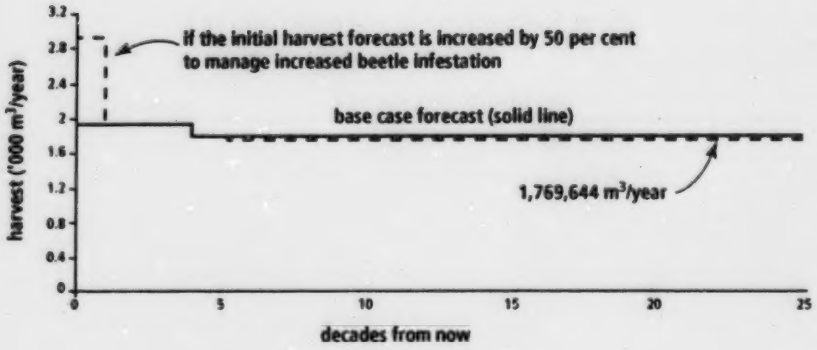

Figure 5. Harvest forecast showing the effects of increasing the initial harvest level to manage the bark beetle infestation —Morice TSA, 2002.

Uncertainty about the bark beetle infestation

Currently, mountain pine, spruce and western balsam bark beetles are infesting forests in the Morice TSA. Harvesting activities based on the current AAC are being used to effectively manage the beetles. However, there is considerable uncertainty about the rate of spread of the beetle infestation.

Figure 5 shows the effects of increasing the initial harvest level in response to an increase in the beetle infestation. The initial harvest level could be increased by 50 per cent for 10 years then decline to the same level as the base case forecast for the subsequent 30 years. The projected long-term harvest level would be approximately two per cent lower than in the base case forecast.

Uncertainty about the area available for timber harvesting

Determining the size of the timber harvesting land base — after reflecting environmental objectives — involves complex considerations and projections about the future. There is no indication the timber harvesting land base in the Morice TSA has been over- or underestimated. Nevertheless, there is some uncertainty as a result of factors like fluctuations in timber prices, changes in global markets, and land-use decisions.

As Figure 6 shows, if lower quality timber found on sites with low productivity are removed from the timber harvesting land base, the medium- and long-term harvest level would be 5.1 per cent lower than in the base case forecast. If markets are high, and areas with high development costs are included in the timber harvesting land base, the harvest level would increase by 2.3 per cent.

Old-Growth Site Index Research

The results of provincial studies suggest that the future productivity of sites currently occupied by old-growth stands may be higher than previously estimated. The research shows that the measured productivity of existing second-growth stands is higher than the productivity estimates using measurements from old-growth stands growing on ecologically similar sites. These results are based on the site productivity that might be achieved under ideal conditions. However, in the field, conditions for regeneration and subsequent growth are not always ideal because of factors like competition from brush, or overstocking. Therefore, some forests may not reach the site productivity suggested by research.

The results of the provincial studies apply to forests older than 140 years, which make up about 31 per cent of the timber harvesting land base in the Morice TSA. A sensitivity analysis examined the impact to timber supply if site productivity is higher than currently estimated for these stands. The results show the long-term timber

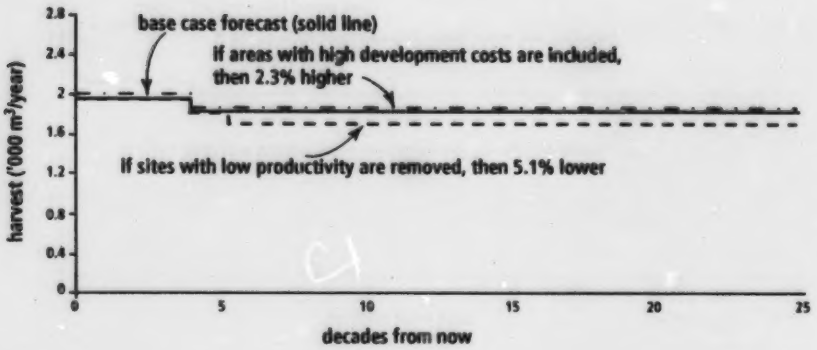

Figure 6. Harvest forecasts showing the effects of uncertainty in the timber harvesting land base—Morice TSA, 2002.

supply could be as much as 13 per cent higher than in the base case. However, local studies are needed to verify the application of the results of the provincial studies to the Morice TSA.

Innovative Forestry Practices Agreements

In 2001, the licensees operating in the Morice and Lakes forest districts were issued an innovative forestry practices agreement (IFPA) that covers both the Lakes and Morice TSAs. A forestry plan is being developed that will outline the innovative forestry practices to be undertaken in the area within the Morice TSA covered by the agreement.

Once the forestry plan has been approved, the holders may request that the Forest Service regional manager increase the allowable annual cut associated with their licences based on the innovative forestry practices. The agreement area is included in the timber harvesting land base. However, the process for reviewing AAC increases for licences linked to the IFPA is not part of the timber supply review process.

Implications of changes in the AAC

Community Implications

The implications of changes in the AAC for local communities are important considerations in the timber supply review. The forest industry in the Morice TSA is a major source of employment and income for local residents. The base case harvest forecast for the Morice TSA suggests that a harvest level of 1,961,117 cubic metres per year (essentially unchanged from the previous AAC) could be maintained for 40 years. The average actual harvest from 1997 to 2000 was 1,969,167 cubic metres per year, or about the same as the base case initial harvest level.

Your input is needed

Public input is a vital part of establishing the AAC. Feedback is welcomed on any aspect of this discussion paper, the *2002 Morice TSA Analysis Report* and other issues related to the timber supply in the Morice TSA. Forest Service staff would be pleased to answer questions to help you prepare your response. Please send your comments to the forest district manager at the address below. **Your comments will be accepted until April 1, 2002.**

You may identify yourself on the response if you wish. If you do, you are reminded that responses will be subject to the Freedom of Information and Protection of Privacy Act and may be made public. If the responses are made public, personal identifiers will be removed before the responses are released.

A summary of public comments will be attached to the AAC rationale and will be available from the district office when the chief forester's AAC determination is announced.

For more information contact and/or mail your comments to:

District Manager
British Columbia Forest Service
Morice Forest District
Bag 2000
2430 Butler Ave.
Houston, B.C. V0J 1Z0

Phone: 250 845-6200,
Fax: 250 845-6276

Or electronically mail to
Mike.Buirs@gems5.gov.bc.ca

Visit our Web site at
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Background Information Regarding TSR

The Chief Forester's Responsibility

Determining the allowable annual cuts (AACs) for public forest lands in British Columbia is the responsibility of the province's chief forester. In this lengthy and complex process, the chief forester considers technical reports, analyses and public input, as well as government's social and economic objectives.

This responsibility is required by legislation in the Forest Act, Section 8. It states that the chief forester shall specifically consider the following factors:

1. The rate of timber production that may be sustained from the area, taking into account:
   - the composition of the forest and its expected rate of growth
   - the time that it will take the forest to become re-established
   - silviculture treatments, including reforestation
   - standards of timber utilization
   - constraints on the amount of timber that may be produced due to use of the forest for other purposes.
2. The short- and long-term implications to the province of alternative rates of timber harvesting from the area.
3. The nature, production capabilities and timber requirements of established and proposed processing facilities.
4. The economic and social objectives of the Crown for the area, region and province—as expressed by the minister of forests.
5. Abnormal insect or disease infestations, and major salvage programs planned for the timber on the area.

Some of these factors can be measured and analyzed—others cannot. Ultimately, the chief forester's determination is an independent professional judgment based on the best available information. By law, the chief forester is independent of the political process, and is not directed by the minister of forests when determining AACs. In these determinations, the chief forester considers relevant information from all sources.